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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chester Malkowski JR.

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EXAMINER

MCCLOUD, RENATA D

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/663,229	MALKOWSKI ET AL.	
	Examiner	Art Unit	
	Renata McCloud	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09/16/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the manual bypass switch comprising an auxiliary switch connected in series with the bypass contactor" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference sign 16 is not shown in Figs. 3-5 as described on page 7 of the specification.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "16" and "46" have both been used to designate variable frequency drive.
4. It is unclear as to what reference number 24 is pointing to in Figs. 3-5.
5. In Fig. 2, it is unclear as to what 52 and 54 are pointing to. Also, the labels need to be enclosed in boxes and have a pointer pointing to what the labels are referring to.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

6. Claim 14 objected to because of the following informalities: the claim recites variable frequency drive twice in line 4 of the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 6 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear how the bypass switch can open the fourth contact being that the claim states that the fourth contact is already open.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 5-6, 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the manual bypass switch" and "the at least one third contact". There is insufficient antecedent basis for these limitations in the claim.

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Claim 8: the limitation "a terminal adapted to receive a conductor electrically coupled to the motor" is unclear. It is unclear if the terminal is coupled to the motor or if the conductor is coupled to the motor.

Claim 8 recites the limitation "the at least one third contact". There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-5,7-9, 20, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Owen (US 5130628).

**Claims 1:** a motor control system comprising a first set of contacts (Fig. 2: x6) coupled in series with an input of a variable frequency drive (Fig. 2: 44); and a second set of contacts (Fig. 2: 46) coupled in series with an output of the variable frequency drive (Fig. 2: 44).

**Claim 2:** an operator (Fig. 2: the switch connected to the contacts) having a first position and a second position, wherein the first and second sets of contacts (Fig. 2: x6 and 46) are closed when the operator is in the first position (Fig. 2: switch to the right) and the first and second sets of contacts are open when the operator is in the second position (Fig. 2: switch to the left).

**Claim 3:** the operator is positioned in the first and second positions (Fig. 2: left or right).

**Claim 4:** a bypass contactor having a third set of contacts (Fig. 2: y1) coupled in parallel with the first and second sets of contacts.

**Claim 5:** a fourth contact (Fig. 2: top contact of y1) coupled in series with the bypass contactor (Fig. 2: one of the bottom contacts of y1), the fourth contact and the bypass contactor adapted to open at least a third contact (Fig. 2: other contact below y1) when the operator is in the first position.

**Claim 6:** the fourth contact is open (Fig. 2: y1).

**Claim 7:** a disconnect (Fig. 2:61) adapted to control power to the motor controller from a source, wherein the first set of contacts (Fig. 2: 51) is electrically coupled in series with the disconnect.

**Claim 8:** a terminal (Fig. 2: terminal from 46) adapted to receive a conductor coupled to the motor, wherein the second set of contacts (Fig. 2:46) are coupled to the terminal.

**Claim 9:** a variable frequency drive (Fig. 2: 44).

**Claim 20:** a controller to drive a motor (Fig. 2:44); a manual bypass switch (Fig. 2: 50) to couple a power source (Fig. 5: 3 phase source) to the controller (Fig. 2:44) and the motor (Fig. 2: 42); the bypass switch isolating the controller from the power source (Fig. 5: 3 phase source) when a second controller is coupled to the motor.

**Claim 28:** orienting a switch (Fig. 2: x6) in a first position to coupled a power source (Fig. 5: 3 phase source) to a variable frequency drive (Fig. 2: 44) and couple to drive to a motor (Fig. 2: 42); and positioning the switch (Fig. 2: x6) in a second position to remove power from the drive (Fig. 2: 44) and de-couple the drive from the motor (Fig. 2:42).

**Claim 29:** coupling the power source (Fig. 5: 3 phase source) through a second controller (Fig. 5: 78) to the motor (Fig. 2: 42) after removing power from the variable frequency

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drive (Fig. 2: 44) and de-coupling the variable frequency drive (Fig. 2: 44) from the motor (Fig. 2:42).

13. Claims 1-3, 7-10,17-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Glennon (US 5008801).

**Claims 1:** a motor control system comprising a first set of contacts (Fig. 2:51) coupled in series with an input of a variable frequency drive (Fig. 2: 26,32,33,34); and a second set of contacts (Fig. 2: 52) coupled in series with an output of the variable frequency drive (Fig. 2: 26,32,33,34).

**Claim 2:** an operator (Fig. 2: the switch connected to the contacts 51,52) having a first position and a second position, wherein the first and second sets of contacts (Fig. 2: 51,52) are closed when the operator is in the first position (Fig. 2: switch to the right) and the first and second sets of contacts are open when the operator is in the second position (Fig. 2: switch to the left).

**Claim 3:** the operator is positioned in the first and second positions (Fig. 2: left or right).

**Claim 7:** a disconnect (Fig. 2:61) adapted to control power to the motor controller from a source, wherein the first set of contacts (Fig. 2: 51) is electrically coupled in series with the disconnect.

**Claim 8:** a terminal (Fig. 2: terminal from 22) adapted to receive a conductor coupled to the motor, wherein the second set of contacts (Fig. 2: 52) are coupled to the terminal.

**Claim 9:** a variable frequency drive (Fig. 2: 26,32,33,34).

**Claim 10:** a variable frequency drive (Fig. 2:26,32,33,34) comprising an input (Fig. 2: 26) and an output (Fig. 2: 34); an electrical system operable to couple the motor (Fig. 2: 36) to the output of the variable frequency drive (Fig. 2:26,32,33,34) and an external power source (Fig. 2:

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18) and adapted to isolate the input and output of the drive from the power source when the motor (36) is coupled to the power source (Fig. 2: 18).

**Claim 11:** the system comprises a switch (Fig. 2: 61) having at least one set of contacts in series with the output of the variable frequency drive (Fig. Fig. 2: 26,32-34).

**Claim 12:** the system comprises a switch (Fig. 2: 61) having at least one set of contacts in series with the input of the variable frequency drive (Fig. Fig. 2: 26,32-34).

**Claim 13:** the bypass switch comprises a double-pole switch (Fig. 2: 51,52) having an operator wherein the at least one set of contacts is coupled in series with the input of the variable frequency drive (Fig. 2: 26,32-34) and at least one set of contacts connected in series with the output (of the variable frequency drive

**Claim 14:** the bypass switch comprises a contactor having at least one set of contacts connected in parallel with at least one set of contacts connected in series with the of the variable frequency drive (Fig. 2: 26,32-34) and at least one set of contacts connected in parallel with at least one set of contacts connected in series in series with the output of the variable frequency drive

**Claim 17:** the external power source (Fig. 2: 18) is an electrical bus.

**Claim 18:** the electrical system (Fig. 3: 60) is operable to provide a control signal to the variable frequency drive (Fig. 2: 26,32,33,34) to establish a desired frequency.

**Claim 19:** the electrical system (Fig. 3: 60) is coupled to an external communication system (Fig. 3: sensed parameters) to enable the desired frequency output to be established via the communication system.

**Claim 20:** a controller to drive a motor (Fig. 2:26,32,33,34); and a switch (Fig. 2: 51) selectively operable to couple a power source (Fig. 2: 18) to a first controller (Fig. 2:



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26,32,33,34) and to the motor, wherein the switch (Fig. 2: 51) isolates the controller from the power source when a second controller (Fig. 2: 60) is coupled to the motor.

**Claim 21:** the first controller comprises a variable frequency drive (Fig. 2:26,32-34).

**Claim 22:** the control circuit comprises a bypass circuit (Fig. 2: bus connecting 51 and 52) around the first controller (Fig. 2: 26,32-34).

**Claim 23:** the switch is a double-pole switch (Fig. 2: 51,52).

**Claim 24:** the switch comprises a first set of contacts (Fig. 3:51) coupled between the second controller (Fig. 3: 60) and an input into the first controller (Fig. 3: 26,32-34).

**Claim 25:** the switch comprises a second set of contacts (Fig. 3:52) coupled between the motor and the output of the first controller (Fig. 2: 26,32-34).

**Claim 26:** the switch comprises a third set of contacts (Fig. 3: 61) in series with a bypass contactor having an electrical contact coupled in series between the second controller (Fig. 3:60) and the motor.

**Claim 27:** the second controller (Fig. 3: 60) is operable to drive the motor.

**Claim 28:** orienting a switch (Fig. 2: 51,52) in a first position to couple a power source (Fig. 2: 18) to a variable frequency drive (Fig. 2: 26,32,33,34) and to couple the drive to a motor (Fig. 2: 22); and positioning the switch (Fig. 2: 51,52) in a second position to remove power from the drive (Fig. 2: 26,32,33,34) and de-couple the drive from the motor (Fig. 2:22).

**Claim 29:** coupling the power source (Fig. 2: 18) through a second controller (Fig. 3: 60) to the motor (Fig. 2: 36) after removing power from the variable frequency drive (Fig. 2: 44) and de-coupling the variable frequency drive (Fig. 2: 44) from the motor (Fig. 2:42).

**Claim 30:** putting the switch in a first position, wherein the power source (Fig. 2: 18) is electrically coupled to the variable frequency drive (Fig. 2: 26,32,33,34) and the variable

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frequency drive is coupled to the motor after the controller (Fig. 3: 60) is decoupled from the motor (Fig. 2:22).

14. Claim 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Raad et al (US 5097195).

**Claims 1:** a motor control system comprising a first set of contacts (Fig. 1: 60) coupled in series with an input of a variable frequency drive (Fig. 1: 50); and a second set of contacts (Fig. 1: 76) coupled in series with an output of the variable frequency drive (Fig. 1:50).

**Claim 2:** an operator (Fig. 1: the switch connected to the contacts) having a first position and a second position, wherein the first and second sets of contacts (Fig. 1: 60 and 76) are closed when the operator is in the first position (Fig. 1: switch to the right) and the first and second sets of contacts are open when the operator is in the second position (Fig. 1: switch to the left).

**Claim 3:** the operator is positioned in the first and second positions (Fig. 12: left or right).

**Claim 4:** a bypass contactor having a third set of contacts (Fig. 1: 68) coupled in parallel with the first and second sets of contacts.

**Claim 5:** a fourth contact (Fig. 1: 68 has 3 contacts) coupled in series with the bypass contactor (Fig. 1: 68), the fourth contact and the bypass contactor adapted to open at least a third contact (Fig. 1: one of the three contacts of 68) when the operator is in the first position.

**Claim 6:** the fourth contact is open (Fig. 1: 68).

**Claim 10:** a variable frequency drive (Fig. 1: 50) comprising an input (Fig. 1: 60) and an output (Fig. 1: 76); an electrical system operable (Fig. 1:40) to couple the motor to the output of the variable frequency drive (Fig. 1: 50) and an external power source (Fig. 1: 52) and adapted

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to isolate the input and output of the drive from the power source when the motor (24) is coupled to the power source (Fig. 1: 52).

**Claim 11:** the system comprises a bypass switch (Fig. 1: 68) having at least one set of contacts in series with the output of the variable frequency drive (Fig. 1:76)

**Claim 12:** the system comprises a bypass switch (Fig. 2: 68) having at least one set of contacts in series with the input (Fig. 1:60) of the variable frequency drive (Fig. 1:50).

**Claim 13:** the bypass switch comprises a double-pole switch (Fig. 1: 68) having an operator wherein the at least one set of contacts is coupled in series with the input (Fig. 1: 60) of the variable frequency drive (Fig. 1:50) and at least one set of contacts connected in series with the output (Fig. 1: 76) of the variable frequency drive

**Claim 14:** the bypass switch comprises a contactor having at least one set of contacts (Fig. 1:72) connected in parallel with at least one set of contacts (Fig. 1: 60) connected in series with the of the variable frequency drive (Fig. 1:50) and at least one set of contacts (Fig. 1:72) connected in parallel with at least one set of contacts (Fig. 1: 64) connected in series in series with the output (Fig. 1:76) of the variable frequency drive.

**Claim 15:** the bypass switch (Fig. 1:68) comprises an auxiliary contact (Fig. 1: one of the contacts) connected in series with the bypass contactor.

**Claim 16:** the frequency drive (Fig. 1:50) is located in a first-compartment and the bypass switch and the bypass contactor (Fig. 1:68) are located in a second compartment.

**Claim 17:** the external power source is a bus (Fig. 1:52).

**Claim 18:** the electrical system (Fig.1: 40) is operable to provide a control signal to the variable frequency drive.

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**Claim 19:** the electrical system (Fig. 1: 40) is coupled to an external communication system (Fig. 2: 106) to enable the desired frequency output to be established via the communication system.

**Claim 20:** a controller to drive a motor (Fig. 1:50); and a bypass switch (Fig. 1: 76) selectively operable to couple a power source (Fig. 1: 52) to a first controller (Fig. 1:50) and to the motor, wherein the switch (Fig. 1: 76) isolates the controller from the power source when a second controller (Fig. 1: 40) is coupled to the motor.

**Claim 21:** the first controller comprises a variable frequency drive (Fig. 1:50).

**Claim 22:** the control circuit comprises a bypass circuit (Fig. 1: 68) around the first controller (Fig. 1: 50).

**Claim 23:** the bypass switch is a double-pole switch (Fig. 1: 68).

**Claim 24:** the bypass switch comprises a first set of contacts (Fig. 1:68) coupled between the second controller (Fig. 1: 40) and an input into the first controller (Fig. 1:50).

**Claim 25:** the bypass switch comprises a second set of contacts (Fig. 1:68) coupled between the motor and the output of the first controller (Fig. 1: 50).

**Claim 26:** the bypass switch comprises a third set of contacts (Fig. 1: 68) in series with a bypass contactor having an electrical contact coupled in series between the second controller (Fig. 1:40) and the motor.

**Claim 27:** the second controller (Fig. 1: 40) is operable to drive the motor.

**Claim 28:** orienting a switch (Fig. 1: 76) in a first position to couple a power source (Fig. 1: 52) to a variable frequency drive (Fig. 1: 50) and to couple the drive to a motor; and positioning the switch (Fig. 1: 76) in a second position to remove power from the drive (Fig. 1:50) and de-couple the drive from the motor.

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**Claim 29:** coupling the power source (Fig. 1: 52) through a second controller (Fig. 1:40) to the motor after removing power from the variable frequency drive (Fig. 1: 50) and de-coupling the variable frequency drive (Fig. 1: 50) from the motor.

**Claim 30:** putting the switch in a first position, wherein the power source (Fig. 1:52) is electrically coupled to the variable frequency drive (Fig. 1:50) and the variable frequency drive is coupled to the motor after the controller (Fig. 1: 40) is decoupled from the motor.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are: Shilling et al (US 4743777), Holt (US 4447767), Glennon et al (US 5068590), Woodward et al (US 6801013), Raad (US 4982123), Blumner (US 4486698), Bailey et al (US 4096423), Reime et al (US 4082988), VanSistine et al (US 6246207), Cilluffo (US 6078160), Colter (US 5350992), Miyazaki et al (US 5212438), Boenig (US 4599519), Rozman et al (US 5594322), Dhyanchand (US 5055700), Latos (US 4992721), Okada et al (US 4841216), Dhyanchand (US 4939441).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 8 am - 5pm.

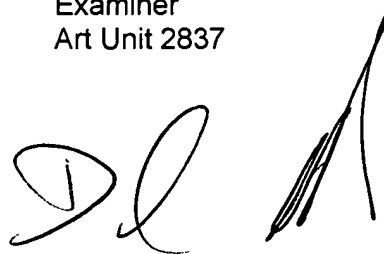
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2800 ext. 4. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Renata McCloud  
Examiner  
Art Unit 2837

RDM

A handwritten signature in black ink, appearing to read 'D. Martin', with a stylized flourish at the end.

DAVID MARTIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800